

REMARKS

This application has been carefully reviewed in light of the Office Action of July 10, 2006, wherein restriction to Group I (claim 1-4) or Group II (claims 5-6) was required on the basis Claims 1-6 were found to lack unit of invention.

Claim Amendments

Claims 1 and 5 have been amended for purposes of clarity. These amendments are supported at paragraphs 0035, 0038, 0040, 0089 of the subject application. Additionally, Claim 5 has been further amended to make express that which is already implicit in the claims. In particular, each of the units recited in the claim body has been amended to expressly recite that the unit is configured to perform the functions that are used to name the unit and distinguish it from other units, *e.g.*, to indicate that the “fibrillating and combining unit” recited in the claim body is configured to perform the functions of “fibrillating” and “combining” in relation to the claimed fibers.

Applicant respectfully submits that none of these amendments change claim scope, and merely provide clarity or make express that which is already implicit in the claim.

Reconsideration of the Restriction Requirement is Requested

Applicant requests consideration of the restriction requirement on the basis of the following errors:

1. The Examiner, Applicant respectfully submits, erred in finding that U.S. Patent No. 5,145,626, Bastioli (“Bastioli”), teaches what the Examiner considered to be the special technical feature linking the Group I and Group II claims, namely, “fibrillating and combing a thermoplastic fiber and a reinforcing fiber to form a composite mat; dispersing and volatilizing the combined fiber, to form a composite mat; and needle punching the mat.” As shown below, Bastioli does not in fact teach, disclose or suggest this feature.
2. The Examiner, Applicant further respectfully submits, erred in finding that the special technical feature linking the Group I and Group II claims does not define a contribution over the prior art. As shown below, the special

technical feature linking these two claim groups does in fact define a contribution over the prior art.

3. The Examiner, Applicant further respectfully submits, erred in finding that the special technical feature linking the Group I and Group II claims is “fibrillating and combining a thermoplastic fiber and a reinforcing fiber to form a composite mat; dispersing and volatilizing the composite mat; and needle punching the mat.” That statement of this special technical feature is incomplete because, in fact, other recited elements link these two claim groups as well.
4. The Examiner, Applicant further respectfully submits, erred in finding that unity of invention is lacking between the Group I and Group II claims. As shown below, unity of invention is present between these two claim groups.

Applicant Traverses the Election

1. *Bastioli does not teach, disclose, or suggest what the Examiner considered to be the special technical feature linking the Group I and Group II claims.*

In the Office Action, the Examiner stated that the present application contains inventions that are not so linked as to form a single general inventive concept. Specifically, the Examiner stated that the “special technical feature which links the claims of groups I and II is fibrillating and combing a thermoplastic fiber and a reinforcing fiber to form a composite mat; dispersing and volatilizing the composite mat; and needle punching the mat.” Further, the Examiner stated that this special technical feature is known in the art, as evidenced by col. 2, lines 5-57 of Bastioli. Thus, the Examiner required that the Applicants elect a single invention. Applicant respectfully traverses the restriction requirement because Bastioli does not in fact teach, suggest or disclose this technical feature.

Claim 1 recites, in part, “fibrillating and combining the thermoplastic fiber and the reinforcing fiber,” and Claim 5 recites, in part, “a fibrillating and combining unit for fibrillating and combining a thermoplastic fiber as a matrix resin and a reinforcing fiber.” (emphasis added) Thus, both claim groups recite combining two fibers.

In contrast, Bastioli merely teaches combining a fiber with a granulated polymer. More specifically, Bastioli recites “[t]he process for the continuous manufacture of thermomoldable thermoplastic composite materials ... comprises: (a) feeding ... a granulated thermoplastic polymer contemporarily with a reinforcement selected from organic or inorganic fibers ...,” see col. 2, lines 5-11 (emphasis added). Thus, while Claims 1 and 5 recite combining a “thermoplastic fiber” with a “reinforcing fiber,” Bastioli describes combining a “granulated thermoplastic polymer” with a fiber. Applicant submits that a “thermoplastic fiber” is not the same thing as a “granulated thermoplastic polymer.” Therefore, the Examiner erred in finding that Bastioli teaches or discloses this technical feature.

2. *The “special technical feature” defines a contribution over the prior art.*

The present invention, as claimed, overcomes problems of lack of uniformity and particle/fiber separation that occur in the prior art when granulated thermoplastic polymers are mixed with pellet type thermoplastic resins. As indicated in the background art section, paragraph 0009 of the present application, when “the reinforcing fiber is combined with powder or pellet type thermoplastic resin as a matrix resin ..., it is difficult to uniformly combine two materials due to their different material phases. As well, after being combined, the resin powders or pellets may be easily separated from the reinforcing fiber during a plurality of treatment processes.”

Since Bastioli describes mixing a granulated polymer with a fiber, it does not overcome this problem and is therefore merely cumulative of the prior art described at paragraph 0009 of the subject application.

The claimed invention, on the other hand, overcomes this problem because of the special technical concept linking the Group I and Group II claims. Therefore, Applicant submits, this technical feature defines a contribution over the prior art, and the Examiner erred in finding otherwise.

3. *The Examiner’s statement of the special technical feature linking the Group I and Group II claims is incomplete.*

In the restriction requirement, the Examiner indicated that the special technical feature linking the Group I and Group II claims is “fibrillating and combining a thermoplastic fiber and a reinforcing fiber to form a composite mat; dispersing and

volatilizing the composite mat; and needle punching the mat.” However, other technical features are common to the Group I and Group II claims that are not included in this statement. Therefore, this statement of the special technical feature linking the Group I and Group II claims is incomplete.

Specifically, Claim 1 claims, in part, “needle-punching ... to maintain a coiled fiber shape and three-dimensional structure of the fiber in the mat.” Claim 5 claims, in part, “a needle-punching unit for needle-punching ... to maintain a coiled fiber shape and three-dimensional structure of the fiber in the mat.” The Applicants submit that “needle-punching ... to maintain a coiled fiber shape and three-dimensional structure of the fiber in the mat” is an additional element that links both groups of claims. However, the Examiner has not indicated where in the Bastioli patent this feature is taught, disclosed, or suggested.

4. *There is unity of invention between the two groups of Claims.*

37 CFR 1.475(b) states “An international or a national state application containing claims to different categories of invention will be considered to have unity of invention if the claims are drawn only to one of the following combinations of categories: ... (4) A process and an apparatus or means specifically designed for carrying out the said process”

Applicant respectfully submit that Claim 1 is directed toward a process and Claim 5 is directed toward an apparatus specifically designed for carrying out the process. “An apparatus or means is specifically designed for carrying out the process when the apparatus or means is suitable for carrying out the process with the technical relationship being present between the claimed apparatus or means and the claimed process.” MPEP §1893.03(d). Thus, the Applicants submit that there is unity of invention between the Group I and Group II Claims. Therefore, Applicant respectfully submits that the restriction requirement is in error for this additional reason.

Provisional Election with Traverse

For the forgoing reasons, Applicant respectfully submits that the restriction requirement is in error. Thus, Applicant has traversed the restriction requirement and reserves its right to petition the restriction requirement should the Examiner continue to maintain the restriction requirement. Should the Examiner make the restriction requirement final, Applicant provisionally elects Group I (Claims 1-4) with traverse.

Concluding Remarks:

For all the foregoing reasons, reconsideration of and withdrawal of the restriction requirement is respectfully requested.

Applicants have enclosed with this response a petition for a two-month extension including authorization to charge our Deposit Account, No. **08-3038**, for the requisite fee. Applicants believe that no additional fees are owed in connection with this response. However, if any additional fee is in fact owing that is otherwise not accounted for, the Commissioner is hereby authorized to charge Deposit Account No. **08-3038**, (referencing Docket No. **03079.0003.NPUS00**) for the requisite fee. Additionally, if further extensions of time are required, the Commissioner is authorized to treat this response as including a petition to extend the time period pursuant to 37 CFR 1.136(a) requesting an extension of time of the number of months necessary to make this response timely filed. The petition fee due in connection therewith may also be charged to Deposit Account No. **08-3038**.

To expedite allowance of this case, the Examiner is earnestly invited to call the undersigned at (949) 759-5269.

Respectfully submitted,

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